

REMARKS/ARGUMENTS

In the Official Action of April 23, 2009, the submission filed March 30, 2009 which accompanied the RCE was held to be not fully responsive to the prior Office Action. In particular, amended claims 1 – 7 and 22 were held to be directed to an invention that is independent or distinct from the invention originally claimed as elected in response to the restriction requirement.

To overcome this objection, original claims 1 – 7 and 22 have been reinstated as new claims 23 – 30. Claims 1 – 7 and 22 as previously amended in the submission filed March 30, 2009 have been retained. In addition, in order to avoid excess claims fees, non-elected claims 9 to 16 and 21, which were previously withdrawn from consideration, have been cancelled, without disclaimer of the subject matter thereof. Applicant reserves the right to file a divisional application on these claims.

With regard to the previous prior art rejection, the Examiner is invited to consider the remarks presented in the March 30, 2009 submission. Applicant submits that the differences between the cited prior art documents as described therein apply both to the method claims and to the newly presented claims directed to the solid support, and that the support is both novel and non-obvious from the prior art. The electrografted coatings of polymers disclosed in Bertrand et al. allows the attachment of small molecules such as proteins, peptides, oligonucleotides, dyes, drugs and anti-bacterial compounds. However Bertrand et al. does not teach or make obvious the encapsulation of biocompatible polymers involving the use of a solid support with at least 90% of functional groups of interest accessible for the formation of a covalent, ionic or hydrogen bond with a complementary group, and in which the accessible functional groups of interest density is comprised between $10^4/\mu\text{m}^2$ and $10^{10}/\mu\text{m}^2$, in order to encapsulate macromolecules. Such macromolecules have complex three-dimensional structures and are usually difficult to attach to electrically conducting surfaces, and in particular to metals.


The advantages resulting from the specific method and support as claimed herein are demonstrated by Example 6 and Example 13 of the present patent application. These examples show that the encapsulation of macromolecules having complex three-dimensional structures such as polysaccharides (i.e., hydroxyethylcellulose in Example 6 and a functionalized dextrane in Example 13) is possible thanks to the great accessibility of the functional groups of interest on

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the electrografted coating used in the claimed method.

None of the prior art cited by the Examiner discloses such a specific solid support or method for encapsulating macromolecules having complex three-dimensional structures. Therefore, the combination of recited features as set forth in the claims of record is both novel and non-obvious. Favorable reconsideration by the Examiner is solicited.

Respectfully submitted,



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